

But because the protein from alfalfa isn't digested as well, or utilized quite as efficiently, it takes three and one-half to four pounds of alfalfa to provide as much protein as a pound of 44 per cent supplement.

This method is also adapted to the purchase of commercially mixed cattle and sheep supplements. Common sense tells us that in order to meet a fixed requirement for protein, it takes twice as much of a 20 per cent supplement to meet that requirement as of a 40 per cent supplement. The additional energy contained in the 20 per cent supplement is no more valuable than that in grain or roughage. So if it is protein you are buying, buy it on the basis of cost per unit of protein because it is almost always cheaper to buy energy as a grain or roughage.

Unfortunately the problem is not as simple for hogs or poultry. In their case, quality of protein may be as important as quantity, therefore some consideration must be given to the kind of protein that is purchased. In the case of hogs at least 25 to 35 per cent of the protein supplement should be of animal origin (tankage, meat scraps, milk products, etc.).

A rough rule of thumb to remember is that at least 20 per cent of the protein a hog eats should be of animal origin for most efficient production. A small percentage of protein is present in any grain, therefore the supplement should contain enough animal protein to balance not only the protein found in the supplement, but also that contained in the grain. If quality of protein is equal between two protein supplements, then again the practice of buying protein per unit of protein would save money for the hog producer.

POTATO ANGLES

Wide adoption of improved varieties of potatoes by farmers is one of the reasons why crop failures are so much less frequent now than 25 years ago. Other reasons are the use of certified seed, concentration of production in favorable areas, and more effective control of insects and diseases.

The national potato breeding program of the Agricultural Research Administration and many state experiment stations is responsible for much of this improvement. Each year it releases new varieties better suited to certain areas.

Dr. F. J. Stevenson, USDA potato breeder, has collected some interesting figures on the popularity of potato varieties. According to the lists of certified potato seed, 51 varieties were planted in 1948. Of these, 20 were in use before 1900, and 31 are only 17 years old or less. The old varieties, such as Irish Cobbler, Triumph, White Rose, Russet Burbank, and Green Mountain, account for more than half the certified seed sold. But Katahdin, leader of the new potatoes, nearly all of which have Indian names like Chippewa and Sebago, tops all individual varieties.

Potato progress is by no means at a standstill. Dr. Stevenson looks forward to making new combinations of desirable characters with breeding stock already available—USDA